REMARKS

Applicants have amended Claim 21 to specify only those embodiments in which component (a) is penflufen (per Applicants' previous amendment) and component (b) is limited to compounds used in mixtures for which test data are provided in the specification (see tables beginning at page 87) and compounds that are structurally closely related to such compounds. For the convenience of the Examiner, Applicants note that the tested mixtures retained in Claim 21 include mixing partners found in group (2) (namely, azoxystrobin, fluoxastrobin, (2E)-2-(2-{[6-(3-chloro-2-methylphenoxy)-5-fluoro-4-pyrimidinylloxylphenyl)-2-(methoxyimino)-N-methylethanamide. trifloxystrobin, kresoxim-methyl, picoxystrobin, and pyraclostrobin), group (3) (namely, propiconazole, epoxiconazole, prothioconazole, tebuconazole, and bitertanol), group (5) (namely, iprovalicarb and benthiavalicarb), group (6) (namely, boscalid, fenhexamid, carpropamid, 3,4-dichloro-N-(2-cyanophenyl)isothiazole-5-carboxamide, and penthiopyrad), group (8) (namely, metalaxyl-M and benalaxyl-M), group (9) (namely, pyrimethanil), group (11) (namely, propamocarb), group (12) (namely, iprodione), group (14) (namely, prochloraz and triazoxide), group (16) (namely, fludioxonil), group (17) (namely, fosetyl-Al), group (19) (namely, spiroxamine and fenamidone), group (20) (namely, pencycuron), group (21) (namely, fenoxanil), group (22) (namely, 5-chloro-N-[(1S)-2.2.2-trifluoro-1-methylethyl]-6-(2.4.6-trifluorophenyl)[1.2.4]triazolo[1.5-a]pyrimidine-7-amine and 5-chloro-N-[(1R)-1,2-dimethylpropyl]-6-(2,4,6-trifluorophenyl)-[1,2,4]triazolo[1,5-a]pyrimidine-7-amine), and group (24) (namely, N-(3',4'-dichloro-5fluoro-1.1'-biphenyl-2-yl)-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide). For the further convenience of the Examiner. Applicants also point out that mixtures containing structurally related compounds for which test results are not presented in the specification include mixing partners found in group (2) (namely, (2E)-2-(methoxyimino)-N-methyl-2-(2-{[({(1E)-1-[3-(trifluoromethyl)phenyl]ethyliden}amino)oxy]methyl}phenyl)ethanamide, (2E)-2-(methoxyimino)-N-methyl-2-{2-[(E)-({1-[3-(trifluoromethyl)phenyl]ethoxy\imino)methyl]phenyl\ethanamide, and dimoxystrobin), group (3) (namely, azaconazole, etaconazole, fenbuconazole, triadimenol, and triadimefon), group (6) (namely, N-[2-(1,3-dimethylbutyl)phenyl]-1-methyl-4-(trifluoromethyl)-1H-pyrrole-3-

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carboxamide), group (8) benalaxyl and metalaxyl), group (9) (namely, cyprodinil), group (11) (namely, propamocarb-hydrochloride and propamocarb-fosetyl), group (16) (namely, fenpiclonil and pyrrolnitrin), and group (24) (namely, 3-(difluoromethyl)-N-{3'-fluoro-4'-[(E)-(methoxyimino)methyl]-1,1'-biphenyl-2-yl}-1-methyl-1H-pyrazole-4-carboxamide, 3-(trifluoromethyl)-N-{3'-fluoro-4'-[(E)-(methoxyimino)methyl]-1,1'-biphenyl-2-yl}-1-methyl-1H-pyrazole-4-carboxamide, and N-(3',4'-dichloro-1,1'-biphenyl-2-yl)-5-fluoro-1,3'-dimethyl-1H-pyrazole-4-carboxamide). Due to the close similarity of chemical structures within each such group, Applicants believe it reasonable to expect enhanced biological properties for both the mixtures for which data are reported in the specification and the mixtures of the other compounds specified in Claim 21.

Applicants have accordingly amended Claim 19 to limit the mixing partners to compounds within Claim 21 as amended and a reasonably limited number of compounds that are structurally similar. In view of the extensive test results provided in the specification, Applicants believe that Claim 19 has a reasonable scope. While preparing the current amendments to Claim 19, Applicants' undersigned representative noticed that the formula for the triazolopyrimidines of formula (XIV) in group (22) inadvertently defined amino groups R⁴⁰ and R⁴¹ in a way that excludes compound (22-1), which is identified in the specification at page 35, lines 3-4, and in Claim 21 as 5-chloro-*N*-[(/15)-2,2,2-trifluoro-1-methylethyl]-6-(2,4,6-trifluorophenyl)[1,2,4]triazolo-[1,5-a]pyrimidine-7-amine. Rather than correct the definitions of R⁴⁰ and R⁴¹, Applicants have incorporated compounds (22-1) and (22-2) from Claim 21 (and the specification at page 35) into Claim 19. Applicants thus submit that Claim 19 remains fully supported in the specification.

In view of previous and current amendments to Claims 20 and 21, Applicants have canceled Claim 25 as being redundant.

Applicants have also amended Claims 19 and 21 to insert a comma after the number "2" in a series of numbers that were modified in a previous amendment and to indicate the deletion of group (18). These minor amendments have no substantive effect on the claimed subject matter.

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Applicants submit that all of the amendments to the claims are fully supported in the specification.

Rejection under 35 U.S.C. 103

Claims 19, 21, 25, and 30-35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/010149. Applicants note that a counterpart of WO 03/010149 is U.S. Patent 7,538,073, which they will use as an English translation in the following discussion. Applicants respectfully traverse.

As previously discussed with respect to the '073 patent in Applicants' Amendment dated June 23, 2010, WO 03/010149 is directed to pyrazolylcarboxanilides having the formula

$$\begin{array}{c} R^1 \\ N \\ N \\ R^2 \end{array}$$

in which the various substituents are defined in the '073 patent at column 1, lines 25-67. Among the many disclosed pyrazolylcarboxanilides can be found compound 3.26 (see column 34), which corresponds to penflufen. WO 03/010149 also teaches that the disclosed pyrazolylcarboxanilides can be used in combination with other active compounds, including some of the mixing partners specified by Applicants (e.g., '073 patent at column 21, line 61, through column 26, line 15). Although WO 03/010149 states that "[i]n many cases, synergistic effects are obtained" (see '073 patent at column 21, lines 65-66), the reference does not teach or suggest which mixtures might be synergistic. Applicants submit that those skilled in the art would generally expect merely additive effects, not synergism. The reference itself gives no guidance at all as to which of the many mixing partners might or might not produce synergism, which is hardly surprising given the general unpredictability of synergism and the absence of any specific examples in the reference of a even one synergistic mixture.

Applicants, in contrast, have presented data for specific mixtures containing penflufen (compound 1-2 of the specification) and <u>dozens</u> of mixing partners of different types, all of which show enhanced fungicidal activity – and most of which show dramatically enhanced activity – compared with the results expected for such mixtures.

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See data in Tables A to C and F to O of the specification beginning at page 87. The Final Office Action at page 3 states that "Applicant has not provided evidence from which it can be concluded that <u>every</u> claimed combination would be expected to exhibit synergy" (emphasis added). However, in view of the narrowing of their claims to include only tested compounds and their close structural relatives, Applicants respectfully submit that their extensive showing of enhanced activity fully supports the allowability of their amended claims over the cited art.

Applicants therefore respectfully submit that their claimed invention is not rendered obvious by WO 03/010149.

Double Patenting Rejections

Applicants note that the first double patenting rejection discussed below is reiterated from the previous Office Action dated March 26, 2010, but that the second double patenting rejection is new.

A. U.S. Patent 7,538,073 in view of Eicken et al '070, Eicken et al '897, and Ding et al

Claims 19, 21, 25, and 30-35 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1-12 and 14-16 of U.S. Patent 7,538,073 in view of U.S. Patent 5,438,070 ("Eicken et al '070"), "Applicant's admission," U.S. Patent 5,480,897 ("Eicken et al '897"), and U.S. Patent Publication 2002/0134012 ("Ding et al"). Applicants again note that the '073 patent is a counterpart of WO 03/010149, which has been relied upon for the obviousness rejection discussed above. Applicants respectfully traverse.

As discussed above and in Applicants' previous Amendment, the '073 patent is directed to pyrazolylcarboxanilides having the formula

$$R^1$$
 $CO-NH$
 R^3
 R^2

in which the various substituents are described above, compound 3.26 of which corresponds to penflufen, as well as combinations thereof with other active compounds, including some of the mixing partners specified by Applicants. However, the '073 patent CS8786 - 20 -

does not teach or suggest that such mixtures would be synergistic and none of the claims of the '073 patent are directed to such mixtures. The Final Office Action maintains at page 8 that the other cited references would suggest that such mixtures would be effective in treating plants and seeds and might exhibit synergism. Applicants again submit that those skilled in the art would at most expect merely additive effects, not synergism. In view of the absence of claims within the '073 patent directed to synergistic mixtures, Applicants respectfully submit that their claimed invention is patentably distinct from the '073 patent.

B. <u>Copending Application 11/997,079</u>

Claims 19, 21, 25, and 30-35 stand provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1, 4, and 5-15 of copending U.S. Patent Application 11/997,079. Applicants note that the '079 application has now been published as U.S. Patent Publication US 2009/0286681. Applicants respectfully traverse.

The '079 application is directed to three-component combinations containing (A) a carboxamide having the formula

in which A and B independently can be any of a variety of aromatic or heteroaromatic ring systems; (B) an azole having the formula

where the various substituents are defined in the reference; and (C) either a second azole (C1) or a strobilurin (C2) having the formula specified in the reference. E.g., '681 publication at paragraphs [0005] through [0045]. Among the host of such azoles (B) can be found penflufen, identified in the copending application as compound I-2. See '681 publication at paragraph [0049]. Despite differences in the claims of the reference and of their claimed invention, Applicants offer to submit a suitable terminal disclaimer with

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respect to this newly cited copending application if the claims are otherwise found allowable.

In view of the preceding amendments and remarks, allowance of the claims is respectfully requested.

Respectfully submitted,

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